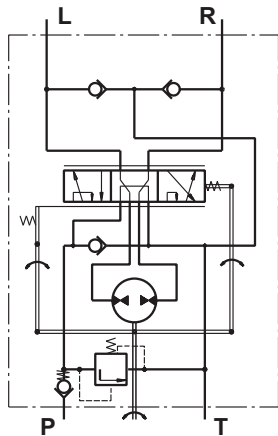


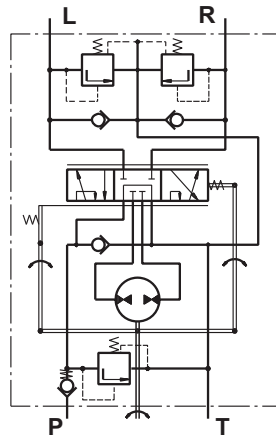
HYDROSTATIC STEERING UNITS TYPE HKUS.../3, 4, 8



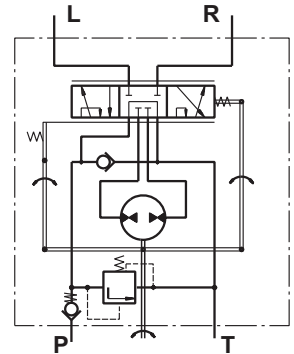
The HKUS Hydrostatic Steering unit is based on the HKU unit but has built-in relief and check valves. Thus M+S Hydraulic achieves one very compact steering unit which reduces the need for additional hydraulic components in the system.



"Open Center - Load Reaction"
HKUS.../3



"Open Center - Non Load Reaction"
HKUS.../4



"Open Center - Non Load Reaction"
HKUS.../8

SPECIFICATION DATA

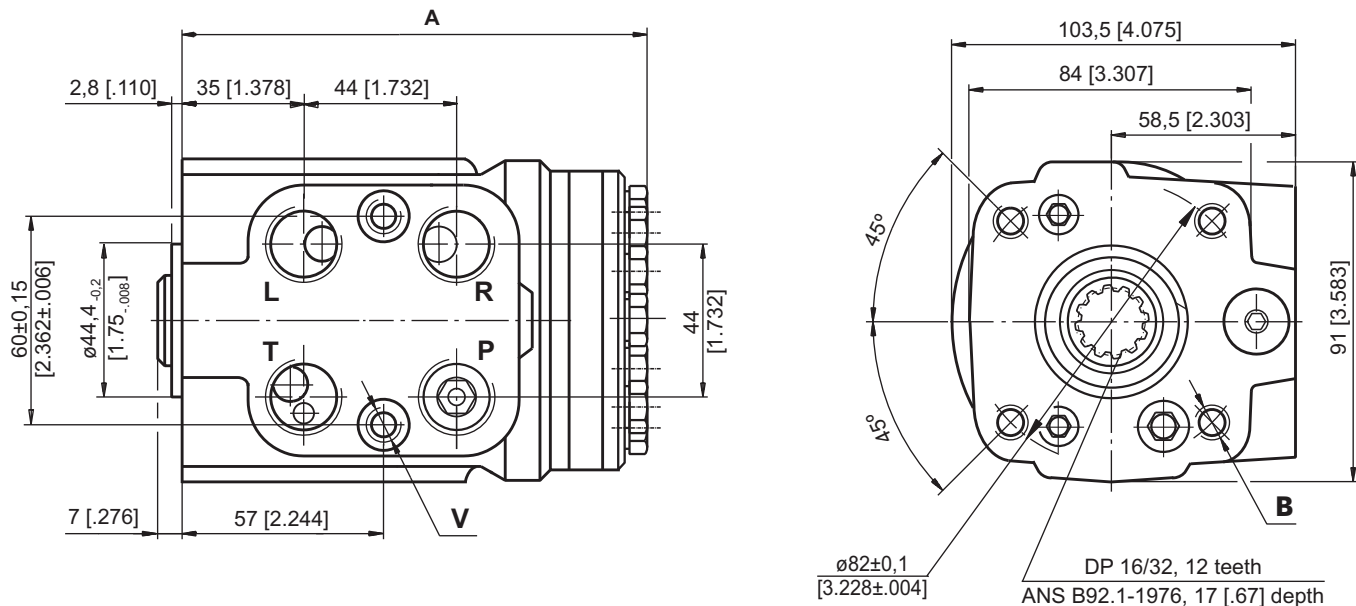
| Parameters | Type | | | | | | | | | | | | |
|------------------------------------|--|--|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------|
| | HKUS 40/3,4,8 | HKUS 50/3,4,8 | HKUS 63/3,4,8 | HKUS 80/3,4,8 | HKUS 100/3,4,8 | HKUS 125/3,4,8 | HKUS 160/3,4,8 | HKUS 200/3,4,8 | HKUS 250/3,4,8 | HKUS 320/3,4,8 | HKUS 400/3,4,8 | HKUS 500/3,4,8 | |
| Displacement | cm ³ /rev [in ³ /rev] | 39,6 [2.42] | 49,5 [3.0] | 65,6 [4.0] | 79,2 [4.83] | 99,0 [6.04] | 123,8 [7.56] | 158,4 [9.67] | 198 [12.1] | 247,5 [15.1] | 316,8 [19.3] | 396 [24.2] | 495 [30.2] |
| Rated Flow* | lpm [GPM] | 4 [1.1] | 5 [1.3] | 6 [1.6] | 8 [2.1] | 10 [2.6] | 13 [3.4] | 16 [4.2] | 20 [5.3] | 25 [6.6] | 32 [8.4] | 40 [10.6] | 50 [13.2] |
| Rated Pressure | bar [PSI] | 140 [2030] | | | 170 [2465] | | | | | | | | |
| Relief Valve Pressure | | 80 | | | 100 | 125 | 150 | 170 | | | | | |
| Settings** | bar [PSI] | [1160] | | | [1450] | [1810] | [2175] | [2465] | | | | | |
| Shock Valves Pressure | | 140 | | | 160 | 180 | 200 | 220 | | | | | |
| Settings*** | bar [PSI] | [2030] | | | [2320] | [2610] | [2900] | [3190] | | | | | |
| Max. Cont. Pressure in Line T | bar [PSI] | 25 [363] (50 [725] by HKUS.../8) 40 [580] | | | | | | | | | | | |
| - standard | | | | | | | | | | | | | |
| - high pressure (H option) | | | | | | | | | | | | | |
| Max. Torque at Servoamplifying | Nm [lb-in] | 3,0 [26] | | | | | 3,0 [26] | | | | | | |
| - with standard springs | | 1,8 [16] | | | | | - | | | | | | |
| - with soft springs (LT option) | | | | | | | | | | | | | |
| Max. Torque w/o Servoamplifying | Nm [lb-in] | 120 [1065] | | | | | | | | | | | |
| Weight | kg [lb] | 5,3 [11.7] | 5,4 [11.9] | 5,5 [12.2] | 5,6 [12.4] | 5,7 [12.6] | 5,8 [12.8] | 6,0 [13.2] | 6,3 [13.9] | 6,5 [14.3] | 7,0 [15.4] | 7,4 [16.3] | 8,0 [17.6] |
| Dimension A | mm [in] | 130,8 [5.15] | 132,2 [5.20] | 133,9 [5.27] | 136,2 [5.36] | 138,8 [5.47] | 142,2 [5.60] | 146,8 [5.78] | 152,2 [5.99] | 158,8 [6.25] | 168,2 [6.62] | 178,8 [7.04] | 192 [7.56] |

* Rated Flow at 100 RPM.

** Pressure Settings are at Rated Flow (as in the table) and viscosity 21 mm²/s [105 SUS] at 50°C [122°F].

*** Pressure Settings are at flow rate of 2 lpm [.53 GPM] and viscosity 21 mm²/s [105 SUS] at 50°C [122°F].

DIMENSIONS AND MOUNTING DATA - HKUS.../3, 4, 8



| Code | Ports - P*, T, R, L Thread | Column Mounting Thread - B | Valve Mounting Thread - V |
|------|---------------------------------------|--------------------------------------|--------------------------------------|
| - | G1/2 17 [.67] depth | 4 x M10 18 [.71] depth | 2 x M10x1 16 [.63] depth |
| M | M22x1,5 17 [.67] depth | 4 x M10 18 [.71] depth | 2 x M10x1 16 [.63] depth |
| A | 3/4 - 16 UNF O-ring 17 [.67] depth | 4 x 3/8 - 16 UNC 15,7 [.62] depth | 2 x 3/8 - 24 UNF 14,2 [.56] depth |

*Threaded Ports P min 15 [.59] depth for pipe mounting.

STEERING UNITS

ORDER CODE

| | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| HKU | | / | - | | | | | |

Pos.1 - Displacement code (see Specification Data)

- 40** - 39,6 cm³/rev [2.42 in³/rev]
- 50** - 49,5 cm³/rev [3.00 in³/rev]
- 63** - 65,6 cm³/rev [4.00 in³/rev]
- 80** - 79,2 cm³/rev [4.83 in³/rev]
- 100** - 99,0 cm³/rev [6.04 in³/rev]
- 125** - 123,8 cm³/rev [7.56 in³/rev]
- 160** - 158,4 cm³/rev [9.67 in³/rev]
- 200** - 198,0 cm³/rev [12.10 in³/rev]
- 250** - 247,5 cm³/rev [15.10 in³/rev]
- 320** - 316,8 cm³/rev [19.30 in³/rev]
- 400** - 396,0 cm³/rev [24.20 in³/rev]
- 500** - 495,0 cm³/rev [30.20 in³/rev]
- 630** - 623,6 cm³/rev [38.05 in³/rev]
- 800** - 793,0 cm³/rev [48.40 in³/rev]
- 1000** - 990,0 cm³/rev [60.40 in³/rev]

Pos.2 - Versions

- 3** - Version 3 "Open Center - Load Reaction"
- 4** - Version 4 "Open Center - Non Load Reaction"
- 7** - Version 7 "Closed Center - Non Load Reaction"

Pos.3 - Ports

- omit - BSPP (ISO 228)
- M** - Metric (ISO 262)
- A** - SAE (ANSI B 1.1 - 1982)
- BA*** - SAE (ANSI B 1.1 - 1982)

Pos.4 - Max. Cont. Pressure in line T

- omit - Standard
- H** - High pressure

Pos.5 - Input torque

- omit - Standard
- LT*** - Low

Pos.6 - Noise level

- omit - Standard
- LN*** - Low

Pos.7 - Option (Paint)***

- omit - No Paint
- P** - Painted
- PC** - Corrosion Protected Paint
- PS** - Special Paint****
- PCS** - Special Corrosion Protected Paint****

Pos.8 - Design Series

- omit - Factory specified

Notes:
 * Available only for displacement from 40 to 200.
 ** Available only for versions 3 and 4 with displacement from 40 to 200.
 *** Colour at customer's request.
 **** Non painted feeding surfaces, colour at customer's request.

The steering units are manganophosphatized as standard.

ORDER CODE

| | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| HKUS | | / | - | - | | | | | |

Pos.1 - Displacement code (see Specification Data)

- 40** - 39,6 cm³/rev [2.42 in³/rev]
- 50** - 49,5 cm³/rev [3.00 in³/rev]
- 63** - 65,6 cm³/rev [4.00 in³/rev]
- 80** - 79,2 cm³/rev [4.83 in³/rev]
- 100** - 99,0 cm³/rev [6.04 in³/rev]
- 125** - 123,8 cm³/rev [7.56 in³/rev]
- 160** - 158,4 cm³/rev [9.67 in³/rev]
- 200** - 198,0 cm³/rev [12.10 in³/rev]
- 250** - 247,5 cm³/rev [15.10 in³/rev]
- 320** - 316,8 cm³/rev [19.30 in³/rev]
- 400** - 396,0 cm³/rev [24.20 in³/rev]
- 500** - 495,0 cm³/rev [30.20 in³/rev]

Pos.2 - Versions

- 3** - Version 3 "Open Center - Load Reaction"
- 4** - Version 4 "Open Center - Non Load Reaction"
- 8** - Version 8 "Open Center - Non Load Reaction"

Pos.3 - Relief Valve Pressure Settings, bar

80, 100, 125, 150, 170

Pos.4 - Ports

- omit - BSPP (ISO 228)
- A** - SAE (ANSI B 1.1 - 1982)
- M** - Metric (ISO 262)

Pos.5 - Max. Cont. Pressure in line T

- omit - Standard
- H** - High pressure

Pos.6 - Input torque

- omit - Standard
- LT*** - Low

Pos.7 - Noise level

- omit - Standard
- LN*** - Low

Pos.8 - Option (Paint)***

- omit - No Paint
- P** - Painted
- PC** - Corrosion Protected Paint
- PS** - Special Paint****
- PCS** - Special Corrosion Protected Paint****

Pos.9 - Design Series

- omit - Factory specified

| Version | Manual Steering Check Valve | Relief Valve | Inlet Check Valve | Cylinder Relief Valve | Anti-Cavitation Valve |
|---------|-----------------------------|--------------|-------------------|-----------------------|-----------------------|
| 3 | • | • | • | | • |
| 4 | • | • | • | • | • |
| 8 | • | • | • | | |

Notes:
 * Available only for displacement from 40 to 200.
 ** Colour at customer's request.
 *** Non painted feeding surfaces, colour at customer's request.

The steering units are manganophosphatized as standard.